

IN THE
COURT OF SPECIAL APPEALS OF MARYLAND

September Term 2019

No. CSA-REG-0087

CLARENCE JONES III,
Appellant,

v.

STATE OF MARYLAND,
Appellee.

APPEAL FROM THE CIRCUIT COURT FOR BALTIMORE COUNTY
(THE HONORABLE COLLEEN CAVANAUGH)

**BRIEF OF *AMICI CURIAE* THE INNOCENCE NETWORK AND CENTER
FOR INTEGRITY IN FORENSIC SCIENCES**

Jennifer H. Wu
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
1285 Avenue of the Americas
New York, NY 10019
(212) 373-3000

Stacie Fahsel
Benjamin Moskowitz
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
2001 K Street, NW
Washington, DC 20006
(202) 223-7300

Counsel for *Amici Curiae*

TABLE OF CONTENTS

| | <u>Page</u> |
|---|--------------------|
| TABLE OF AUTHORITIES | ii |
| INTERESTS OF AMICI CURIAE | v |
| STATEMENT OF THE CASE | 1 |
| INTRODUCTION | 1 |
| ARGUMENT..... | 2 |
| I. CASES BASED ON THE SBS/AHT HYPOTHESIS POSE A SERIOUS RISK OF JUDICIAL ERROR | 2 |
| A. The SBS/AHT Hypothesis Is Unsupported by the Most Recent Scientific and Medical Research | 3 |
| B. Courts Have Overturned Convictions Which Rely on the SBS/AHT Hypothesis to Demonstrate Alleged Abuse | 9 |
| II. THE CIRCUIT COURT IGNORED MATERIAL NEW EVIDENCE REGARDING THE SBS/AHT HYPOTHESIS | 12 |
| CONCLUSION | 14 |

TABLE OF AUTHORITIES

| | Page(s) |
|--|----------------|
| CASES | |
| <i>People v. Ackley</i> , 497 Mich. 381 (2015)..... | 11 |
| <i>Aleman v. Vill. of Hanover Park</i> , 662 F.3d 897 (7th Cir. 2011) | 6, 10 |
| <i>Allison v. State</i> , 448 P.3d 266 (Alaska Ct. App. 2019)..... | 12 |
| <i>People v. Bailey</i> , 47 Misc. 3d 355 (N.Y. Sup. Ct. 2014) | 11 |
| <i>Cavazos v. Smith</i> , 565 U.S. 1 (2011)..... | 9 |
| <i>Del Prete v. Thompson</i> , 10 F. Supp. 3d 907 (N.D. Ill. 2014) | 3, 11 |
| <i>State v. Edmunds</i> , 308 Wis.2d 374 (2008)..... | 12 |
| <i>Ex parte Henderson</i> , 384 S.W.3d 833 (Tex. Ct. Crim. App. 2012)..... | 12 |
| <i>State v. Jacoby</i> , No. 15-11-0917-I, 2018 WL 5098763 (N.J. Super. Ct. Aug. 17, 2018)..... | 12 |
| <i>In re Rihana J.H.</i> , 2017 WL 890526 (N.Y. Fam. Ct. Feb. 23, 2017)..... | 9 |
| <i>Vanek v. Wofford</i> , No. CV 14-4427-AG (KK), 2016 WL 6783340 (C.D. Cal. July 26, 2016) | 11 |
| OTHER AUTHORITIES | |
| A.C. Thompson, <i>California Governor Commutes Sentence in Shaken Baby Case</i> , PROPUBLICA, Apr. 6, 2012 | 10 |

TABLE OF AUTHORITIES
(Continued)

| | <u>Page(s)</u> |
|---|-----------------------|
| C. Smith & J. Bell, <i>Shaken Baby Syndrome: Evidence and Experts</i> , 50 DEVELOPMENTAL MED. & CHILD NEUROLOGY 6 (2008)..... | 3 |
| Catherine Adamsbaum, et al., <i>Abusive Head Trauma: Judicial Admissions Highlight Violent and Repetitive Shaking</i> , 126 PEDIATRICS 546 (2010)..... | 6 |
| Cindy Christian, et al., <i>Abusive Head Trauma in Infants and Children</i> , 123 PEDIATRICS 1409 (2009)..... | 7 |
| DEBORAH TUERKHEIMER, <i>FLAWED CONVICTIONS: “SHAKEN BABY SYNDROME” AND THE INERTIA OF INJUSTICE</i> , xiv (Oxford Univ. Press 2014) | 4 |
| Emily Bazelon, <i>Shaken Baby Syndrome Faces New Questions in Court</i> , N.Y. TIMES MAGAZINE, Feb. 2, 2011..... | 2 |
| INNOCENCE NETWORK, <i>STATEMENT OF THE INNOCENCE NETWORK ON SHAKEN BABY SYNDROME/ABUSIVE HEAD TRAUMA</i> (Jun. 14, 2019),..... | 3 |
| Kristy Arbrogast, et al., <i>Initial Neurologic Presentation in Young Children Sustaining Inflicted and Unintentional Fatal Head Injuries</i> , 116 PEDIATRICS 180 (2005)..... | 5 |
| LORI FRASIER, ET AL., <i>ABUSIVE HEAD TRAUMA IN INFANTS AND CHILDREN: A MEDICAL, LEGAL, AND FORENSIC REFERENCE</i> (GW Medical Publishing, Inc. 2006)..... | 4 |
| Maha Mian, et al., <i>Shaken Baby Syndrome: A Review</i> , 34 FETAL AND PEDIATRIC PATHOLOGY (2015)..... | 4 |
| Mark Dias, <i>The Case for Shaking</i> , CHILD ABUSE AND NEGLECT: DIAGNOSIS, TREATMENT, AND EVIDENCE 362 (Carole Jenny, ed., 2011)..... | 5 |
| Sandeep Narang, <i>A Daubert Analysis of Abusive Head Trauma/Shaken Baby Syndrome</i> , 11 HOUS. J. HEALTH L. & POL’Y 505 (2011)..... | 4 |
| Niels Lynøe, et al., <i>Insufficient Evidence for ‘Shaken Baby Syndrome’ – A Systematic Review</i> , 106 ACTA PAEDIATRICA 1021 (2017)..... | 3 |

TABLE OF AUTHORITIES
(Continued)

| | <u>Page(s)</u> |
|--|-----------------------|
| Patrick E. Lantz & Daniel E. Couture, <i>Fatal Acute Intracranial Injury, Subdural Hematoma, and Retinal Hemorrhages Caused by Stairway Fall</i> , 56 J. OF FORENSIC SCI. 1648 (2011)..... | 7 |
| Paul Steinbok, et al., <i>Early Hypodensity on Computed Tomographic Scan of the Brain in an Accidental Pediatric Head Injury</i> , 60 NEUROSURGERY 689 (2007) | 7 |
| PRESIDENT’S COUNCIL OF ADVISORS ON SCIENCE AND TECHNOLOGY (PCAST), <i>FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS</i> (2016) | 7–8 |
| Shalea Piteau et al., <i>Clinical and Radiographic Characteristics Associated with Abusive and Nonabusive Head Trauma: A Systematic Review</i> , 130 PEDIATRICS 315 (2012)..... | 3 |

INTERESTS OF AMICI CURIAE¹

The Innocence Network (the “Network”) is an affiliation of organizations dedicated to providing pro bono legal and investigative services to indigent prisoners seeking to prove their innocence. The 68 current members of the Network represent hundreds of prisoners with innocence claims in all 50 states and around the world. Based on its experience exonerating innocent people and examining the causes of wrongful convictions, the Network has become keenly aware of the role that unreliable or improper scientific and medical evidence has played in miscarriages of justice, especially where the evidence is comprised almost completely of expert scientific or medical testimony. Some of the underlying “science” in these cases has been exposed as flawed, disputed, or outright false.

The Center for Integrity in Forensic Sciences (“CIFS”) is a non-profit organization that works toward ensuring the reliability of forensic sciences, both in theory and as applied, particularly in crime laboratories and courtrooms. Among its goals, CIFS seeks to eliminate subjective, unvalidated, unfalsifiable, or otherwise unreliable areas of forensic opinion and analysis from courtrooms; to improve the sophistication, rigor, and accuracy of judicial oversight of the admission of forensic testing, testimony, opinion, and other evidence; and to reduce, or where possible eliminate, confirmation bias in the work of forensic analysts.

¹ In accordance with Rule 8-511, the parties to this appeal have consented to the filing of this brief. No party other than *amici* made a monetary or other contribution to the preparation or submission of the brief. No counsel to a party in this case authored this brief in whole or in part.

In approximately half of the nearly 370 convictions later overturned through DNA evidence in the United States, flawed or inaccurate forensic and/or medical evidence played a role in the wrongful conviction. Therefore, especially in science-dependent cases, the Network and CIFS are committed to ensuring, as an essential component of a fair and just determination of the facts that judgments are premised upon accurate scientific and medical evidence—an interest directly implicated in this case.

The Network and its member organizations have a long history directly representing, or providing amicus support for, people who were wrongly convicted of crimes based on faulty forensic evidence introduced at trial. It is through this work that the Network has come to understand that a wide variety of previously accepted forensic and medical sciences are now outdated or deeply flawed. CIFS seeks to provide similar amicus support where forensic sciences are implicated. In light of the ongoing dispute and evolving understanding in the medical community with respect to SBS/AHT, the Network and CIFS respectfully seeks to assist the Court.

STATEMENT OF THE CASE

The Network and CIFS adopt by reference the statement of the case set forth in the Brief of Appellant Clarence Jones III.

INTRODUCTION

The Circuit Court erred by ignoring material scientific evidence that shaken baby syndrome or abusive head trauma hypothesis (the “SBS/AHT hypothesis”) is unsound. The SBS/AHT hypothesis is a diagnosis based on the theory that when an infant presents with three medical findings, sometimes referred to as the “triad”—(i) subdural hematoma, (ii) retinal hemorrhage, and (iii) cerebral edema or encephalopathy—it can be inferred that those findings were caused by abusive shaking. This hypothesis further assumes that the trauma would have caused symptoms to arise immediately and therefore was necessarily inflicted by the person who had physical custody of the child at the time that the symptoms arose.

The SBS/AHT hypothesis is unsound and therefore poses a serious risk of wrongful conviction. Scientific evidence—including substantial evidence developed after the 1999 trial of Mr. Jones—has made clear that these medical findings can be attributed to a wide variety of causes (such as natural disease or injury during birth) that are completely unrelated to shaking or intentional injury. As a result, it is now generally accepted that the presence of the “triad” (or its components) does not by itself give rise to a reliable diagnosis of abusive shaking. Because of the scientific community’s lack of understanding of the

SBS/AHT hypothesis, Collin's medical team and the State's medical experts did not seriously consider other known causes of the medical findings.

Specifically, the trial court credited medical experts who testified that the most likely explanation for baby Collin's findings was abuse by the father (that is, Petitioner). But their testimony was based on: (1) the assumption—now known to be scientifically erroneous—that the only explanation for baby Collin's findings was abuse; and (2) the medical communities' ignorance of the variety of maladies—many of which Collin suffered from—that can be confused with, but are not, child abuse. The Circuit Court compounded its error by finding that nearly all of the Appellant's evidence was not newly discovered and that it was not material. True alternative hypotheses were not presented to the trial court that would have established that the SBS/AHT claims were based on outdated scientific theories and thus incorrect.

Accordingly, the Network and CIFS support Appellant's request that the Court overturn the denial of his Innocence Petition and vacate his convictions.

ARGUMENT

I. CASES BASED ON THE SBS/AHT HYPOTHESIS POSE A SERIOUS RISK OF JUDICIAL ERROR

The SBS/AHT hypothesis is no longer supported by reliable scientific evidence, and it has been shown to result in false accusations and convictions.² Indeed, there is now

² See, e.g., Emily Bazelon, *Shaken Baby Syndrome Faces New Questions in Court*, N.Y. TIMES MAGAZINE, Feb. 2, 2011, available at <https://www.nytimes.com/2011/02/06/magazine/06baby-t.html>.

broad agreement that the studies supporting the SBS/AHT hypothesis are plagued by circular reasoning,³ that the past consensus statements of major medical associations were mistaken, and that the best (and perhaps only) support for the hypothesis relies upon unreliable and deeply problematic confessions by accused parents and caretakers. *See Del Prete v. Thompson*, 10 F. Supp. 3d 907, 936–37 (N.D. Ill. 2014) (Dr. Carole Jenny, a prominent supporter of the SBS hypothesis, conceded during cross-examination that one chapter of a book that she recognized as “one of the best chapters” within a “definitive text on child abuse,” which she herself edited, “states that no one has marshalled a coherent argument to support shaking alone as a causal mechanism for abusive head injury, and that the only evidence basis for this proposition consists of perpetrator confessions.”).⁴

A. The SBS/AHT Hypothesis Is Unsupported by the Most Recent Scientific and Medical Research

Recent scientific and medical research has established that the traditional medical findings associated with the SBS/AHT hypothesis are inadequate to reliably diagnose SBS/AHT without further corroborating evidence.⁵ As discussed below, current research

³ Shalea Piteau, et al., *Clinical and Radiographic Characteristics Associated with Abusive and Nonabusive Head Trauma: A Systematic Review*, 130 PEDIATRICS 315, 316, 321 (2012) (reviewing the “best available evidence” in order to help clinicians in the “difficult task of distinguishing between” abusive head trauma and non-abusive head trauma and finding that the best studies supporting the diagnosis are “fraught with circular reasoning.”).

⁴ *See also* INNOCENCE NETWORK, STATEMENT OF THE INNOCENCE NETWORK ON SHAKEN BABY SYNDROME/ABUSIVE HEAD TRAUMA 4–5 (Jun. 14, 2019), *available at* <https://innocencenetwork.org/wp-content/uploads/STATEMENT-OF-THE-INNOCENCE-NETWORK-ON-SHAKEN-BABY-SYNDROME-2.pdf>.

⁵ *See, e.g.*, Niels Lynøe, et al., *Insufficient Evidence for ‘Shaken Baby Syndrome’ – A Systematic Review*, 106 ACTA PAEDIATRICA 1021, 1025–26 (2017). Even those that maintain that trauma is the most likely cause of subdural hemorrhage in infancy state unequivocally that the triad is not exclusively caused by inflicted injury. C. Smith & J.

shows that (i) subdural hematoma, (ii) retinal hemorrhage, and (iii) cerebral edema or encephalopathy, are now understood to be attributable to a wide variety of causes, including natural and accidental causes.

First, “subdural hematoma” refers to bleeding between layers of tissue that cover the brain. It is now clear that there are many accidental and natural causes of subdural hematomas, including prenatal conditions, congenital malformations, venous thrombosis, infectious disease, and genetic, metabolic, clotting, and autoimmune disorders.⁶ **Second**, “retinal hemorrhage” refers to bleeding in the back of the eyes. It is now clear that retinal hemorrhages in infants are associated with a variety of traumatic and natural causes. Even a leading supporter of the SBS/AHT hypothesis acknowledges myriad alternative causes for retinal hemorrhaging, including accidents and genetic and metabolic conditions.⁷ **Third**, “cerebral edema or encephalopathy,” respectively, refer to the excessive accumulation of fluid in the brain (cerebral edema), or any brain disease, damage, or dysfunction (encephalopathy). Research has found that cerebral edema is not significantly

Bell, *Shaken Baby Syndrome: Evidence and Experts*, 50 DEVELOPMENTAL MED. & CHILD NEUROLOGY 6, 7 (2008); see also DEBORAH TUEKHEIMER, *FLAWED CONVICTIONS: “SHAKEN BABY SYNDROME” AND THE INERTIA OF INJUSTICE*, xiv (Oxford Univ. Press 2014) (“FLAWED CONVICTIONS”).

⁶ See LORI FRASIER, ET AL., *ABUSIVE HEAD TRAUMA IN INFANTS AND CHILDREN: A MEDICAL, LEGAL, AND FORENSIC REFERENCE* 191–226 (GW Medical Publishing, Inc. 2006); Maha Mian, et al., *Shaken Baby Syndrome: A Review*, 34 FETAL AND PEDIATRIC PATHOLOGY, 169–71 (2015).

⁷ See Narang, *A Daubert Analysis of Abusive Head Trauma/Shaken Baby Syndrome*, 11 HOUS. J. HEALTH L. & POL’Y 505, app. C at 628 (2011).

associated with trauma.⁸ Under the original SBS/AHT hypothesis, it was thought that encephalopathy seen in the tearing of neuronal axons was caused by shaking. But current research indicates these symptoms reflect a deprivation of oxygenated blood to the brain (hypoxia), rather than direct mechanical injury, a development that even ardent supporters of the SBS/AHT hypothesis have now acknowledged.⁹

Medical experts have also developed a new understanding of the onset of abusive head trauma. Under the original SBS/AHT hypothesis, it was thought that the onset of symptoms immediately followed shaking or other trauma. However, research now shows that a child may experience a period of lucidity that lasts hours—or even days—between the time of the injury and the onset of symptoms.¹⁰ Accordingly, the timing of the presentation of symptoms cannot be relied upon with any certainty to infer the timing of the injury.

Medical evidence supporting the SBS/AHT hypothesis is also fatally flawed because it relies on confessions. Collections of purported confessions to abuse constitute the principal datasets for studies supporting the SBS/AHT hypothesis. However, false confessions are particularly likely in cases where infants suddenly collapse. In such cases, upset caregivers often speak to investigators without counsel, and investigators convince

⁸ See *supra* n.3 at 319.

⁹ See Mark Dias, *The Case for Shaking*, CHILD ABUSE AND NEGLECT: DIAGNOSIS, TREATMENT, AND EVIDENCE 362, 370 (Carole Jenny, ed., 2011) (“It is becoming increasingly clear . . . that the widespread cerebral and axonal damage in cases of AHT are, in fact, ischemic rather than directly traumatic in nature.”).

¹⁰ Kristy Arbrogast, et al., *Initial Neurologic Presentation in Young Children Sustaining Inflicted and Unintentional Fatal Head Injuries*, 116 PEDIATRICS 180, 181 (2005).

caregivers—under intensive questioning—that they have somehow shaken the infant to death. *Aleman v. Vill. of Hanover Park*, 662 F.3d 897, 907 (7th Cir. 2011) (“A confession so induced is worthless as evidence, and a premise for an arrest.”).¹¹

The high risk of false confessions calls into question much of the medical literature purporting to support the SBS/AHT hypothesis. In one study, researchers compared cases of infant subdural hematoma in which a perpetrator confessed to violent shaking with cases in which no confession was obtained.¹² The researchers found no differences in SBS/AHT-type clinical findings between the two groups, and from this suggested that the SBS/AHT-type symptoms in the no-confession group were caused by similar violent shaking.¹³ But these findings are exactly what one would expect if false confessions were widespread in SBS/AHT cases—both groups would be largely composed of infants suffering from non-traumatic illness rather than abusive trauma. Thus, the study’s implications are premised on the absence of false confessions.

And the failure to correct for false confessions in SBS/AHT research leads to incorrect results. Confessions are coerced, in part, by convincing caregivers that an infant’s SBS/AHT-type clinical findings could only have been caused by shaking. In turn, these

¹¹ See also *FLAWED CONVICTIONS*, *supra* n.5 at 99–101.

¹² See generally Catherine Adamsbaum, et al., *Abusive Head Trauma: Judicial Admissions Highlight Violent and Repetitive Shaking*, 126 *PEDIATRICS* 546 (2010).

¹³ *Id.* at 552.

coerced confessions can be used by researchers to further confirm that the SBS/AHT-type clinical findings are sufficient to infer violent shaking.¹⁴

It was not until after 2001 that the research community recognized that false confessions confound empirical research on the SBS/AHT hypothesis.¹⁵ Thus, it constitutes new evidence in this context that justifies granting Mr. Jones's petition. In light of the medical community's newly developed understanding, the American Academy of Pediatrics has altered its position regarding the SBS/AHT hypothesis.¹⁶ Specifically, the Academy eliminated the presumption of abuse when infants presented with subdural or retinal bleeding or cerebral edema, omitted the claim that short falls cannot cause these findings, and recognized that medical diseases can mimic the presentation of SBS/AHT.¹⁷

The recent acknowledgment by medical experts that a once-established hypothesis is flawed is not unique to cases involving Shaken Baby Syndrome. Over the past two decades, medical and legal experts have called into question a variety of forensic evidence that was once an entrenched part of the courtroom.¹⁸ In 2016, this reckoning led President

¹⁴ See *FLAWED CONVICTIONS*, *supra* n.5 at 97–126.

¹⁵ See *supra* n.4.

¹⁶ See Cindy Christian, et al., *Abusive Head Trauma in Infants and Children*, 123 *PEDIATRICS* 1409 (2009).

¹⁷ See *id.* at 1409–10. This is consistent with the medical literature on short falls. See, e.g., Patrick E. Lantz & Daniel E. Couture, *Fatal Acute Intracranial Injury, Subdural Hematoma, and Retinal Hemorrhages Caused by Stairway Fall*, 56 *J. OF FORENSIC SCI.* 1648, 1652 (2011); see also Paul Steinbok, et al., *Early Hypodensity on Computed Tomographic Scan of the Brain in an Accidental Pediatric Head Injury*, 60 *NEUROSURGERY* 689, 693 (2007).

¹⁸ PRESIDENT'S COUNCIL OF ADVISORS ON SCIENCE AND TECHNOLOGY (PCAST), *FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS* (2016), at 25–29, available at

Obama to call for an investigation into “additional steps on the scientific side . . . that could help ensure the validity of forensic evidence used in the Nation’s legal system.”¹⁹ In response to this call, the President’s Council of Advisors on Science and Technology (“PCAST”) published a report titled *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* (“Report”). The PCAST Report emphasized “the need to evaluate specific forensic methods to determine whether they have been scientifically established to be valid and reliable” and concluded that several types of forensic methods that had long been used in courts lacked scientific validity, resulting in false convictions.²⁰ While not specifically evaluating SBS, the Report did note that “there are issues related to the scientific validity of other types of forensic evidence that are beyond the scope of this report but require urgent attention—including . . . ‘Shaken Baby Syndrome.’”²¹

Thus, while many forensic science methods and tools like the SBS/AHT hypothesis were once used unquestioningly, “[o]nly within the past decade has the forensic science community begun to recognize the need to empirically *test* whether specific methods meet the scientific criteria for scientific validity.”²²

https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf.

¹⁹ *Id.* at x.

²⁰ *Id.* at 22–23, 146–50.

²¹ *Id.* at 23 n.15.

²² *Id.* at 122.

B. Courts Have Overturned Convictions Which Rely on the SBS/AHT Hypothesis to Demonstrate Alleged Abuse

Advances in contemporary science make clear that the SBS/AHT hypothesis is no longer justified. Convictions premised on the SBS/AHT hypothesis follow a two-step process. First, an expert witness testifies on the state’s behalf regarding the cause of injury, opining that a child’s condition could have been caused *only* by shaking or abuse. Second, the witness identifies the accused by claiming that the last person physically with the child *had* to be the abuser because the child *must* have exhibited symptoms immediately after the alleged abuse.²³ This process is contrary to modern science, which is premised upon the idea that conclusions are sound only after the most rigorous questioning of empirical evidence. As one court explained, “[e]ven the names of the diagnoses, i.e.,] ‘abusive head trauma’ and ‘shaken baby syndrome,’ have been criticized as essentially self-fulfilling prophecies. Rather than noting the objective injury observed separate from hypothesizing the cause, these ‘diagnoses’ conflate[] the two distinct concepts into one.” *In re Rihana J.H.*, 2017 WL 890526, at *2 (N.Y. Fam. Ct. Feb. 23, 2017).

Even the United States Supreme Court has questioned the validity of the SBS/AHT hypothesis. In *Cavazos v. Smith*, 565 U.S. 1 (2011), the majority—constrained by deference to the fact-finder’s guilty verdict—noted that “[d]oubts about whether [the defendant] is in fact guilty are understandable” in light of the conflicting expert medical testimony surrounding the evolving science. *Id.* at 7. Indeed, partially in light of these

²³ See, e.g., *supra* n.10.

“doubts,” the majority suggested that there “perhaps would be grounds to seek clemency” for defendant. *Id.* at 8. More pointedly, Justices Ginsburg, Breyer, and Sotomayor explained in dissent that “[r]eason to suspect the . . . thesis” that “infants can be fatally injured through shaking alone” has increased substantially in recent years. *Id.* at 13 (Ginsburg, J., dissenting). Agreeing that “significant doubts surround[ed defendant’s] conviction,” California Governor Jerry Brown commuted defendant’s sentence shortly thereafter.²⁴ In fact, courts around the nation have not only questioned the validity of the hypothesis, but have overturned convictions based upon it. For example:

- In a case highlighting the dangers of confession evidence in convictions based on the SBS/AHT hypothesis, the Seventh Circuit held that police violated a defendant’s constitutional rights when they coerced him into confessing that his “gentle” and “innocently intended” shaking caused an infant’s death. *Aleman v. Vill. of Hanover Park*, 662 F.3d 897 (7th Cir. 2011). During their illegal interrogation, police falsely told defendant that three doctors said the infant “had been shaken in such a way that he would have become unresponsive (unconscious) immediately” following defendant’s CPR efforts, which properly included “mild shaking.” *Id.* at 902. Finding that this false statement “destroy[ed] the information required for a rational choice,” the court held that this “worthless” confession was illegally induced. *Id.* at 903. Not only did the Seventh Circuit rebuke the police for their misconduct, but it also highlighted the sea change in the medical community’s perspective of the SBS hypothesis, pointing out that “[a]lthough the medical profession once thought that there is no interim between trauma and collapse in shaken-baby syndrome, the medical profession now believes . . . that there can be an interim in which the child would be conscious” *Id.* at 902–903. Indeed, the doctors who had actually examined the child “eventually decided” that the infant’s collapse “could have been the delayed effect of . . . earlier trauma rather than of anything [defendant] had done.” *Id.*

²⁴ A.C. Thompson, *California Governor Commutes Sentence in Shaken Baby Case*, PROPUBLICA, Apr. 6, 2012, available at <https://www.propublica.org/article/california-governor-commutes-sentence-in-shaken-baby-case>.

- A California district court granted a petitioner’s request for habeas relief, emphasizing the declaration of a doctor for the proposition that “a more thorough medical investigation would have been considered by any competent attending pediatrician to be both necessary and routine” in SBS/AHT cases in order to rule out a “non-traumatic or accidental cause of the child’s signs and symptoms.” *Vanek v. Wofford*, No. CV 14-4427-AG (KK), 2016 WL 6783340, at *10–11 (C.D. Cal. July 26, 2016). The court noted that “[t]he triad of signs and symptoms” once used for findings of SBS/AHT based upon abuse do not necessarily indicate “violent shaking.” *Id.* at 10. The court thus held that the child in the case at issue may have “suffered from a pre-existing medical condition that may have been present from birth.” *Id.*
- A New York court ordered a new trial on the basis of newly discovered evidence for a defendant who was convicted of abuse on the basis of the SBS/AHT hypothesis. In its ruling, the court cited recent research for the proposition that “there has been a compelling and consequential shift in mainstream medical opinion since the time of the defendant’s trial as to the causes of the types of trauma that [the infant] exhibited.” *People v. Bailey*, 47 Misc. 3d 355, 373 (N.Y. Sup. Ct. 2014).
- The Michigan Supreme Court ordered a new trial for a defendant convicted of the felony murder of his girlfriend’s child based on the SBS/AHT hypothesis. *People v. Ackley*, 497 Mich. 381 (2015). The court held in its ruling that the defendant’s lawyer’s failure to “engage a single expert witness to rebut the prosecution’s expert testimony” on SBS/AHT constituted ineffective assistance of counsel. *Id.* at 383. In particular, the court pointed to the fact that the lawyer did not present an expert to testify to the “prominent controversy within the medical community regarding the reliability of SBS/AHT diagnoses” and cited to the “‘shift in the mainstream medical community’ regarding SBS/AHT diagnoses.” *Id.* at 391–92 (quoting *State v. Edmunds*, 308 Wis.2d 374, 391–92 (2008)).
- A federal court in Illinois found that the discrediting of the SBS/AHT hypothesis constituted newly discovered evidence demonstrating the innocence of a woman convicted on the basis of a SBS/AHT diagnosis 10 years earlier. The court observed that contemporary scientific and medical developments discrediting the SBS/AHT hypothesis “suggest . . . that a claim of shaken baby syndrome is more an article of faith than a proposition of science.” *Del Prete*, 10 F. Supp. 3d at 957 n.10.
- A state appellate court in Wisconsin ordered a new trial where the conviction was based solely on expert medical testimony, and ruled that newly discovered

evidence undermined the validity of the SBS/AHT hypothesis. In its ruling, the court reasoned that “there has been a shift in mainstream medical opinion since the time of [the defendant]’s trial as to the causes of the types of trauma [the infant] exhibited.” *Wisconsin v. Edmunds*, 308 Wis. 2d 374, 391–92 (Wis. Ct. App. 2008). The prosecution subsequently dismissed all charges.

- Earlier this year, an Alaska court vacated a conviction based on the SBS/AHT hypothesis, and ruled that the trial court’s exclusion of other evidence tending to show the infant’s death may have resulted from natural causes constituted reversible error. *Allison v. State*, 448 P.3d 266 (Alaska Ct. App. 2019).
- A Texas appellate court granted petitioner’s habeas request after the medical expert, who originally stated the infant’s injuries could only be the result of SBS/AHT, recanted his testimony in light of the “new developments in the science of biomechanics” that showed the infant’s injuries could have resulted from an “accidental fall.” *Ex parte Henderson*, 384 S.W.3d 833, 833–34 (Tex. Ct. Crim. App. 2012).
- Last year, a New Jersey court found that a defendant accused of abuse on the basis of the SBS/AHT hypothesis was not guilty because “presently there is no sufficiently reliable evidence and no general consensus in the scientific and medical community as to both the age and causation of retinal hemorrhages to satisfy the *Frye* standard.” *State v. Jacoby*, No. 15-11-0917-I, 2018 WL 5098763, at *12 (N.J. Super. Ct. Aug. 17, 2018).

II. THE CIRCUIT COURT IGNORED MATERIAL NEW EVIDENCE REGARDING THE SBS/AHT HYPOTHESIS

The Circuit Court erred by finding that nearly all of Appellant’s evidence was not newly discovered and that it was not material. True alternative hypotheses were not presented to the trial court even though new scientific evidence now allows for such alternative hypotheses to be evaluated. Specifically, the trial court’s decision relied almost exclusively on the testimony of the State’s expert witnesses. (JX-003 at 68 (“[T]his case revolves itself on expert testimony.”).) In highlighting this testimony, the Circuit Court stated that “the opinions expressed at trial . . . were the result of a differential diagnosis that

considered Collin’s medical history and attempted to eliminate possible alternative causes of Collin’s injuries through laboratory tests and diagnostic studies.” (Appellant’s App. § B at 4.) But this purported differential diagnosis testimony is illusory. None of the State’s experts entertained “alternative causes” that could explain the full array of Collin’s symptoms without relying on the SBS/AHT hypothesis. Alternative explanations were—at best—offered piecemeal and only for single isolated symptoms. Indeed, in 1999, no expert could have contemplated that the full array of Collin’s symptoms could be explained without reliance on violent shaking. The Circuit Court erred by failing to recognize that, over 15 years later, this has changed.

For example, the State’s expert—Dr. Polk—briefly mentioned the possibility of thrombocytopenia (low platelet count) as a cause of Collin’s retinal hemorrhaging, but dismissed that possibility because it would require that blood in the retina to “be under some pressure.” (JX-002 at 18.) But Dr. Polk did not have the benefit of recent research suggesting that Collin’s other clinical findings (including other clinical findings in the eye) could have been caused by pressure in the brain and eye. In light of the evolutions in medical research over the last 15 years, Dr. Ophoven was able to testify that it was just as likely that Collin’s symptoms resulted from preexisting brain swelling—likely due to chronic subdural blood or fluid following birth. (Hearing Tr. at 182–83, Dec. 4, 2018.) Similarly, at trial, Dr. Smialek testified that Collin had a coagulation disorder called disseminated intravascular coagulation (“DIC”), which he speculated was triggered by cerebral edema brought on by shaking. (JX-003 at 41.) However, Dr. Smialek could not

produce a differential diagnosis that would explain the full constellation of Collin’s symptoms. As before, an expert in the Circuit Court proceedings—Dr. Sahlein—was able to testify that infection could have been the primary cause of Collin’s symptoms, as it is the single largest cause of DIC in Collin’s age group. (Hearing Tr. at 131–33, Dec. 10, 2018.)

The inability to examine comprehensive alternative hypotheses created an asymmetry of evidence for the trial judge. The Circuit Court erred in ignoring substantial, largely uncontested new evidence regarding the SBS/AHT hypothesis and the alternative diagnoses explaining Collin’s symptoms and death. These alternatives were not presented to the fact-finder at trial and constituted a reasonable hypothesis of innocence.

CONCLUSION

Amici supports Appellant’s request that the Court overturn the denial of Innocence Petition and vacate his convictions.

Dated: January 22, 2020

Respectfully Submitted,

/s/ Jennifer H. Wu

Jennifer H. Wu
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
1285 Avenue of the Americas
New York, NY 10019
(212) 373-3000

Stacie Fahsel
Benjamin Moskowitz
PAUL, WEISS, RIFKIND,

WHARTON & GARRISON LLP
2001 K Street, NW
Washington, DC 20006
(202) 223-7300

Counsel for *Amici Curiae*

Statement of Type Style and Point Size

This brief complies with the requirements of Rules 8-112 and 8-504, and is prepared in Times New Roman, 13-point font and 3900 words.

/s/ Jennifer H. Wu

Jennifer H. Wu
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
1285 Avenue of the Americas
New York, NY 10019
(212) 373-3000

Counsel for *Amici Curiae*

Certificate of Service

In accordance with Maryland Rule 20-201(g), I certify that on this day, January 22, 2020, I electronically filed the foregoing “Brief of *Amici Curiae* The Innocence Network and Center for Integrity in Forensic Sciences” using the MDEC System, which sent electronic notification of filing to all persons entitled to service, including Donald P. Salzman, Skadden, Arps, Slate, Meagher & Flom LLP, 1440 New York Avenue, N.W., Washington D.C. 20005 and Brian E. Frosh, Attorney General of Maryland, and Carrie J. Williams, Assistant Attorney General, Office of the Attorney General, Criminal Appeals Division, 200 Saint Paul Place, Baltimore, MD 21202.

/s/ Jennifer H. Wu

Jennifer H. Wu
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
1285 Avenue of the Americas
New York, NY 10019
(212) 373-3000

Counsel for *Amici Curiae*